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Hawaii Renewable Energy Alliance

September 26, 2005

Chair Carlito Caliboso
Commissioner Wayne Kimura
Commissioner Janet Kawelo
Hawaii Public Utility Commission
465 South King Street, Room 106
Honolulu, Hawaii 96813

Re: HREA Comments on the paper - "Proposals for Implementing Renewable Portfolio Standards in Hawaii – submitted to the Commission on July 26, 2005 by Manny A. Macatangay et al, Economists Inc., San Francisco, CA.

Aloha Caliboso and Commissioners Kimura and Kawelo:

Mahalo for the opportunity to review the subject paper and to provide our comments per the Commission's letter of July 26, 2005. We would like to commend Economists Inc. (EI) for an excellent job in preparing the paper.

Our comments are organized and attached as follows: (1) Attachment A – HREA's response to EI's Requests for Comments in the subject paper, and (2) Attachment B – HREA's detailed comments on the paper.

We look forward to reviewing the comments of other stakeholders and discussing the implementation of RPS in Hawaii further at the upcoming October workshop.

If you have any questions on our comments, please call me at 247-7753 or email at: wsb@lava.net.

Sincerely,

Warren

Warren S. Bollmeier II
President

*Renewable energy for a sustainable, environmentally-responsible,
economically-sound future in Hawaii*

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Attachment A HREA's Response to EI Information Requests

The following is HREA's response to EI's request for comments in paragraphs 106, 121 and 172.

Paragraph 106 (Overall Regulatory Issues with RPS and Consideration of Utility Incentives):

1. RPS Goals. Conventionally, RPS is a state-legislated requirement placed on utilities in regulated markets and all energy service providers in restructured markets. The basic goal of the RPS is to diversify the electricity sector portfolios by requiring utilities and/or service providers to certify that X% of its sales are from renewable sources. As EI has pointed out in their paper, some states have expressed their "renewable" goal in terms of installed capacity (MW), as opposed to delivered electricity (MWh). In general, Hawaii's law (as amended by Act 95) comports with the overall framework of conventional RPS. However, there are some important differences in Hawaii's RPS framework from the conventional approach including:
 - a. Definition of Renewable Energy. Hawaii's current definition of renewable energy in our RPS law, which includes certain non-renewable technologies renewable energy, e.g. heat pumps, ice storage, waste heat recovered from fossil fuels and quantifiable energy conservation measures. HREA does support this definition. While the goal of supporting certain non-renewable technologies based on their potential to save electricity via improved energy efficiency, including recycling of waste heat from fossil sources, has merits, that goal should be addressed in a separate law, instead of diluting RPS.

Also, some states have defined two or more tiers of renewables, more or less based on cost. By establishing tiers, there are separate goals to promote each tier, some of which might be more expensive. For example, tier 1 has typically been lower cost renewables, such as wind, geothermal and low-impact hydro. Tier 2 has typically been for higher cost renewables, such as photovoltaics (PV). Where specific tiers are identified, there are separate percentages usually identified, e.g., if the overall RPS is 10%, 9% might be Tier 1 and 1% Tier 2. At this point, Hawaii's law does not include tiers.
 - b. Inclusion of Renewable Energy Offset Technologies. Hawaii's law includes certain renewable technologies that "offset" the amount of electricity required by the utility to serve customer load. These technologies include solar hot water heating, solar air conditioning and seawater air conditioning. As noted above RPS started out as a requirement on wholesale generation. Over time, other states have also included renewable energy offset technologies. We see this as an appropriate addition to conventional RPS, and we anticipate, over time, there will be other off-set technologies that should be included, e.g., net metered renewable systems. We cannot support non-renewable energy offset technologies under RPS.
2. Implementation of RPS. Conventionally, the preferred method for implementing RPS is competitive bidding to acquire renewable electricity (green power) to meet RPS goals. As conceived, penalties were anticipated to ensure compliance. As EI indicated in Table C2, 15 of 22 states have implemented penalties (10) or alternative compliance fees (5), two have implemented both, but none have provided incentives. At the outset of RPS nationwide, as renewables were typically viewed as "risky" by utilities, virtually all green power has been supplied from independent power producers (IPPs). However, most RPS laws allow incumbent utilities to install, own and operate renewable projects to meet their RPS requirements. Finally, there are 15 states that allow trading of renewable energy credits (RECs).

Attachment A
(Continued)

However, to date, there are some important differences in Hawaii's RPS framework from the conventional approach including the recent trends as new states have implemented RPS:

- a. Competitive Bidding. Our law does not expressly require competitive bidding, and our utilities have not moved as of this date to solicit for green power. There have been efforts by Renewable Hawaii Inc. (RHI), a subsidiary of HECO, to partner with industry to develop projects with RHI for sale of green power to HECO via a PURPA-style power purchase agreement. However, the more conventional approach of a utility (such as HECO) soliciting for green power directly has not been pursued. HREA supports the use of competitive bidding as the preferred approach to acquiring green power to meet our state's RPS. (Note: this subject is under consideration as part of the PUC's Docket No. 03-0372, Competitive Bidding for new Generation);
- b. Payments for Green Power. Inherent in conventional RPS is the following construct: RPS defines how much green power is to be acquired, whereas the cost is unknown. (Note: in exact contrast, a System Benefit Charge (SBC) has been used to provide a specific fund to acquire renewables, whereas the amount is unknown). Some states have used both RPS and SBC. Specifically, the SBC can be used to pay for renewables that are deemed to be above avoided costs. Some states have established a CAP on the amount to be spent. These, including Hawaii, are in the minority. We believe Hawaii's law is the only one to limit the payment to avoided cost. While there can and should be additional discussion on how to calculate avoided cost, we believe the more efficient and prudent approach is to select the lowest cost projects via competitive bidding that are deemed necessary for meeting the RPS. In the near term, we believe most of the projects will come in at or below avoided cost. However, we believe that Hawaii needs to move beyond the conventional constraints of avoided cost. There is too much at stake for Hawaii. We are too vulnerable. We need to accelerate our use of renewables as fast as possible, and we may consider it prudent to pay more than what the utility considers to be its avoided cost; and
- c. Incentives and Penalties. One key element of our law (§269-95), and a primary topic of EI's paper, is what type of incentives should be provided to the utility for compliance with the law. The law states that the PUC is to "develop and implement a utility ratemaking structure which may include but is not limited to performance-based ratemaking, to provide incentives that encourage Hawaii's electric utility companies to use cost-effective renewable energy resources", but does not direct the PUC to investigate penalties to ensure compliance. It appears that EI has chosen to look at both positive and negative incentives. We can support the investigation of both positive incentives and negative incentives (i.e., penalties). At the present time, we have the following comments:
 - i) Penalties. Penalties are an element of the three most successful RPS laws to date in the states of Maine, California and Texas. Thus, we support the implementation of penalties sufficient to ensure compliance;
 - ii) Alternate Compliance Fees. Alternate compliance fees may be a better approach, assuming that the fees collected are sufficient to ensure that additional green power is brought on-line or the equivalent amount of electricity is avoided. However, we have concerns whether this approach can be utilized in our small market. If the utility is not successful in acquiring green power, there really is no other market in Hawaii; and

Attachment A
(Continued)

- iii) But Are New Incentives Really Needed? We believe sufficient incentives are already in place, and there is no need for additional incentives. Specifically, by law, the utility (including HECO and KICU) is required to acquire renewables. This is now their job, and they should be entitled to earn a reasonable return on their efforts to acquire renewables, just they have been afforded in developing, operating and maintained their existing infrastructure.

However, in light of the detailed discussion on incentives, we suggest that EI and the PUC also consider a lower rate of return for new conventional (fossil) generation, as an alternative to penalties or compliance fees to ensure compliance with our RPS. Finally, should we find that we absolutely still need “conventional” generation, our straightforward rate-of-return proposal would allow the utility or an IPP to propose to fuel a conventional facility, such as a combustion turbine or reciprocating generator, with a renewable fuel, such as ethanol or biodiesel.

- d. Renewable Energy Credit Trading. Seventeen states have implemented Renewable Energy Credit (REC) trading, whereas our current law does not require that a REC trading system be established. Instead, HECO is allowed to meet its RPS by aggregating the green power supplied on all the islands in its service territory. In lieu of the current silence in the law on RECs, we suggest the following:
 - i) In-State Trading. At this point, it is not clear to us, if an in-state trading system would be needed. However, if one utility could not meet its goal, we believe it would be preferable to see the necessary green power installed in the islands with RECs traded as appropriate. Therefore, we recommend that in-state trading be studied further; and
 - ii) Mainland or Worldwide Trading. The utility could purchase or sell RECs on existing mainland and worldwide trading systems. However, when purchasing RECs, we would not achieve the direct benefits (i.e., green power capacity in Hawaii, reduction of our fossil fuel use, etc.). Therefore, we recommend that out-of-state trading not be considered at this time.

Attachment A
(Continued)

Paragraph 121 (Candidate Renewable Resources for Hawaii):

Hawaii is blessed with abundant renewable resources, and there have been many studies on the potential for renewables in Hawaii. EI has identified and drawn from several of these studies. HREA offers the following comments:

1. Challenge of Project Development. Like conventional projects, it is a challenge to develop renewable projects, especially in Hawaii. While there has been some progress in the past several years, overall implementation of renewable in Hawaii has not lived up to the intent and spirit of PURPA as pointed out by WSB-Hawaii in a study conducted for the Hawaii Energy Policy Forum in 2003.¹ WSB-Hawaii discusses how a more proactive approach is needed and if implemented bodes well for increased use of renewables in Hawaii. Such an approach would include:
 - a. "The contracting process with the utility and PUC is expedited via standard offer contracts, such that contracts can be negotiated, signed and approved by the PUC within one year;
 - b. Developers are treated as partners and work closely with the utility to provide reliable power to the grid while maintaining the integrity of the grid;
 - c. Developers and the utility share the cost of resolving new grid integration issues. Recent experience shows that IPPs and the utility continue to face new technical challenges, and it is appropriate for the utility both to share added costs as we seek to increase our use of renewables, while maintaining the safety and integrity of our electric grids;
 - d. Developers and the utility provide full disclosure to each other and to landowners and the community; and
 - e. All stakeholders assist developers in securing support for projects²."
2. EI's Modeling of Renewables. HREA offers the following comments regarding modeling:
 - a. Key Input Data. All estimates of key input data, such as performance and costs of renewables, are just that – estimates, regardless of their source. The results of each study are based on the analyst's key assumptions and sources of information, and, of course, their professional judgment. While all of these can change over time, it is relatively straightforward to change the model input data. Consequently, we suggest that EI focus on the modeling methodology, and perhaps consider analyzing a range of values for specific key input data; and
 - b. Modeling Methodologies. HREA reserves the right to comment on this topic at a later time.

¹ "A Study of Renewables and Unconventional Energy in Hawaii, Interim Report" prepared by WSB-Hawaii, Kaneohe, Hawaii for the Hawaii Energy Policy Forum, November 19, 2003, pg. 47.

² *Ibid*, 49.

Attachment A
(Continued)

Paragraph 171 (Proposed Candidate IR Mechanisms):

HREA Preliminary Assessment of the Seven Proposed IR Mechanisms. Given that we have already commented above on some aspects of EI's section on "Proposed Candidate IR Mechanisms," we will summarize first our thoughts on the proposed seven IR mechanisms:

1. REC trading system. At this point, it is not clear to us, if a REC trading system would be needed in Hawaii. However, if one utility could not meet its goal, we believe it would be preferable to see the necessary green power installed in the islands with RECs traded as appropriate. Therefore, we recommend that in-state trading be studied further;
2. Alternate Compliance Fees. We believe alternate compliance fees may be problematic in Hawaii. It would be straightforward to collect fees sufficient to ensure that additional green power is brought on-line or the equivalent amount of electricity is avoided. However, we have concerns whether this approach can be utilized in our small market in Hawaii;
3. Penalties. Penalties are an element of the three most successful RPS laws to date in the states of Maine, California and Texas. Thus, we support the implementation of penalties sufficient to ensure compliance;
4. Utility Pays or Receives its Own Avoided Cost. This is essentially what has happened under PURPA, resulting in very little green power over the past 12 years, as was pointed by WSB-Hawaii. If PURPA were implemented in a proactive manner, much green power could be brought on-line between now and 2020.³ However, to be effective, a thorough review and revision of the avoided cost calculation would be needed, including payment of capacity credits to intermittent sources as allowed under PURPA;
5. The utility receives a difference share. In our view, this mechanism shares some of the same difficulties as mechanism 4. In addition to our comments on mechanism 4, we believe that Hawaii should decouple the price we pay for green power from oil. Consequently, we are skeptical at this point about any approach that requires use of a conventional avoided cost. We can support, however, the use of the utility's estimated avoided cost for its next generation increment as the "target" price for a competitive solicitation for renewables and/or all sources;
6. Claw back of incremental utility profit. This mechanism appears to be a stronger type of penalty (mechanism 3) and also similar to compliance fees (mechanism 2) by collecting amounts sufficient to cover the cost to society due to the utility's non-compliance. While an interesting proposal, we believe this mechanism has the same problems that we identified for mechanism 2; and
7. The utility receives a payment based on a multiplier. This mechanism has some intriguing aspects, but we believe it too complex. Also, we believe it is more appropriate for the state, and particularly its consumers, to receive the entire direct benefits of substituting renewables for oil.

³ *Ibid*, 47 to 49.

Attachment A
(Continued)

HREA's Proposed Mechanism 8. HREA respectfully proposes an eighth mechanism, which is a combination of existing incentives and a modification of EI's proposed mechanism 3 (Penalties). We believe this proposal is not only simple, but also elegant. Specifically, no significant revamping of utility ratemaking is required in order to provide appropriate incentives as follows:

1. Existing Incentives are Sufficient. We believe sufficient incentives are already in place, and there is no need for additional incentives. Specifically, by law, the utility (including HECO and KICU) is required to acquire renewables. This is now their job, and they should be entitled to earn a reasonable return on their efforts to acquire renewables, just they have been afforded in developing, operating and maintained their existing infrastructure; and
2. Modified Penalty Mechanism. We believe a blend of incentives and penalties. However, rather than extract an appropriate penalty for non-compliance, e.g., 25 cents/kWh for RPS shortfalls, we suggest that the utility receive a lower rate of return for new conventional (fossil) generation. Finally, should we find that we absolutely still need "conventional" generation, our straightforward rate-of-return proposal would allow the utility or an IPP to propose to fuel a conventional facility, such as a combustion turbine or reciprocating generator, with a renewable fuel, such as ethanol or biodiesel. This would indeed be both a simple and elegant approach.

Attachment B

HREA's Detailed Comments on the EI Paper

The following comments are referenced to the section and page number of the EI paper:

Introduction	
Page 1, paragraph 1	<p>The last sentence in paragraph appears to include a “definition” of “incentive regulation” as follows: “The ratemaking structure may include performance-based ratemaking (“PBR”), which is a form of incentive regulation (“IR”) typically providing a system of rewards or penalties applied upon meeting or falling short of performance standards (see Appendix A for a review of utility rate regulation in general and rate-of-return regulation and IR in particular).”</p> <p>HREA Comments: Would it be correct to assume by “incentive” EI includes both incentives and “disincentives?” Colloquially, this definition is akin to “carrots and sticks,” and we agree that penalties should be included in this discussion, even though are not spelled out in our RPS law.</p>
Page 1, footnote 2	<p>Reference footnote 2: <i>HRS § 269-91 provides that</i> “Cost-effective’ means the ability to produce or purchase electric energy or firm capacity, or both, from renewable energy resources at or below avoided costs.”</p> <p>HREA Comments: The interpretation and application of avoided costs by the utility in Hawaii has been and continues to be a contentious process resulting in a barrier to Independent Power Producers (IPPs) in the negotiation of power purchase agreements (PPAs). HREA encourages EI to investigate and make recommendations to the Commission as to whether current utility practice comports with the spirit and intent of PURPA.</p>
Page 2, Paragraph 3	<p>The first sentence reads as follows: “Under the RPS of Hawaii, the Commission is to determine the impact of any proposed utility ratemaking structure on the profit margins of electric utility companies, and to ensure that such profit margins do not decrease as a result of implementing the proposed utility ratemaking structure.”</p> <p>HREA Comments: Notwithstanding the passage above in <i>HRS § 269-95</i>, HREA respectfully submits that the requirement that the Commission “ensure that such profit margins do not decrease as a result of implementing the proposed utility ratemaking structure,” if not illegal, is not an appropriate role for the Commission. As an alternative, we recommend that that EI examine whether the utility has the opportunity to make reasonable profits as “a result of implementing the proposed utility ratemaking structure.”</p>
Page 4, paragraph 14	<p>This paragraph includes discussion of the apparent three types of renewable energy projects: stand-alone central power station, customer-sited, and energy efficiency programs.</p> <p>HREA Comments: Regarding “stand-alone central power station” (CG, for short) we believe this definition is not inclusive, e.g., there may be renewable CG’s located near conventional CG, but there will also renewable DG (Distributed Generation) with capacities up to 10 MW on utility distribution lines and located on customer sites or near customer load centers, and there will also be larger renewable DCG (Decentralized Generation) consisting of projects greater than 10 MW located on utility transmission or sub-transmission lines and closer to load centers than conventional CG.</p>

Attachment B
(Continued)

Page 4, paragraph 14 (Continued)	<p>Regarding customer-sited projects, these DG projects should be viewed as demand-side measures, as they are located on the customer-side of the meter and are not designed expressly to feed back and sell power to the grid. Examples include net metered small-scale wind, solar, biomass and hydro projects that exchange power with the grid, and Combined Heat and Power.</p> <p>Regarding energy efficiency (and conservation), some renewables such as solar hot water are designed to avoid the use of electricity, while conventional energy efficiency measures promote more efficient use of electricity.</p>
Page 4, paragraph 14	<p>The last point made is: <i>“And seventh, there may be a need to determine the minimum efficient scale of renewable projects, especially in the context of technological change.”</i></p> <p>HREA Comments: The market will determine the minimum efficient scale of renewable projects. Furthermore, industry will be innovative in response to solicitations for competitive bids. Thus, it will be hard to predict the minimum efficient scale of renewable projects.</p>
Page 6, footnote 15	<p>Footnote 15 references Energy Information Administration (EIA) information regarding world oil price estimates that appears to be dramatically outdated.</p> <p>HREA Comments: If EI’s modeling of Hawaii’s electricity sector is to be valuable and represent actual market realities, a more realistic approach, such as “risk-adjusted” pricing, needs to be used for oil pricing.</p>
Page 6, paragraph 22	<p>The last sentence of paragraph 22 reads as follows: “Among alternative renewable energy resources, the most significant capacity additions are likely to come from biomass, wind, and geothermal rather than from solar.”</p> <p>HREA Comments: This statement has to have a context. For example, between now and 2025, the EIA may be correct with regard to nation-wide and world-wide capacity additions. However, due to our high energy costs, solar is likely to play a larger role in Hawaii. For example, with the new federal solar tax credits (and assuming it is extended) and our existing tax credits, it is quite likely that we will start seeing commercial solar projects in Hawaii within the next 2 - 5 years. Also, certainly beyond the 2025 timeframe as most sites for wind, biomass and geothermal will likely be developed, solar will play an even more important role.</p>
Page 6, paragraph 23	<p>HREA Comments: The current content of paragraph 23 does not include the potential impacts of the federal energy bill.</p> <p>EI should update the description of the financial incentives.</p>
Page 7 paragraph 26	<p>HREA Comments: Either here or somewhere else in the text, it would be helpful to have a definition of REC.</p>
Page 12, paragraph 34	<p>HREA Comments: Does the Maryland law have interim goals, like we do in Hawaii? If so, please include them.</p>
Page 15, paragraph 40	<p>HREA Comments: From the description of the DC RPS, it is not clear, is there a carve-out” for solar within the Tier I?</p>

Attachment B
(Continued)

Page 22, paragraph 52	<p>The second sentence reads as follows: “The trading of RECs ensures that new renewable energy capacity is built most efficiently and economically.”</p> <p>HREA Comments: This statement is never really explained. HREA believes that RPS is most efficient and economic, if the trading of RECs is NOT required. Specifically, if all green power is installed and operated within the utility’s jurisdiction, then the jurisdiction, such as Hawaii, benefits directly. Moreover, HREA believes RPS will be most efficient and economic if it is implemented via competitive bidding. This approach has been shown to result in attractive, low-cost projects in states such as Texas.</p> <p>We do agree that intrastate trading of RECs could be an efficient and economic vehicle for making up for green power shortfalls between our utilities. However, if RECs were purchased from an out-of-state source, we do not believe the results would be beneficial to Hawaii. First, our utility would pay for the RECs without receiving the green power, and, second, the state would not receive the direct benefits.</p>
Page 28, paragraph 64	<p>HREA Comments: It would be good to update the response to the Minnesota Commission’s “questions related to weighting and the use of tradable RECS prior to the establishment of a system by the Minnesota Commission.”</p>
Page 29, paragraph 67	<p>HREA Comments: HREA is curious as to whether EI believes the California implementation model (CPUC and CEC) has merits for Hawaii?</p>
Page 29 - 30, paragraph 68	<p>HREA Comments: The CPUC, CEC and the California Power Authority are proceeding to expand RPS requirements in California. Does EI have an opinion regarding this approach in the absence of a legislative mandate?</p>
Page 34, paragraph 79	<p>HREA Comments: Same comments as on page 4, paragraph 14 (above)</p>
Page 38, paragraph 98	<p>The first sentence in this paragraph reads: “The first and a necessary condition for the adoption of any of the three IR mechanisms is the presence of a legislative mandate that makes its usage possible.”</p> <p>HREA Comments: Does EI believe that that a legislative mandate is really necessary or perhaps only desirable? For example (reference paragraph 68 on page 30), it appears that California’s Public Utility and Energy Commissions are proceeding to expand California’s RPS without a legislative mandate.</p>
Page 41, paragraph 108	<p>The last sentence in this paragraph reads: “The potential volatility in wind energy output, due to the intermittent nature of wind, could be addressed through the establishment of wind project portfolio.”</p> <p>HREA Comments: HREA observes there are at least two other ways to mitigate “potential volatility in wind energy output:” (1) use of energy storage, and (2) advanced system controls in conjunction with discretionary loads and storage.</p>

Attachment B
(Continued)

Page 41, paragraph 109	<p>The last sentence in this paragraph reads: “High initial capital costs of solar power projects appear to have adversely affected its competitiveness versus other renewable energy resources (see Table D1).”</p> <p>HREA Comments: In addition to our comments on paragraph 22 on page 6 (above), initial capital costs are only one (albeit important) element as to what makes a project economically viable. Let’s look at the case for a parabolic trough system. EI reports (per Table D3 that the effective cost of energy for parabolic dish trough systems to be 7.7 cents/kWh) making it appear to be expensive. However, it is not, with our current high avoided costs and assuming such a system could be built now. HREA would like to note that 7.7 cents/kWh estimate (derived from WSB-Hawaii’s study for the Hawaii Energy Policy Forum) was for 2033. So, once again, a trough system appears as a far-term option. This might not be the case, however, with the availability of current state incentives and federal incentives that will become effective on January 1, 2006, and if our already high avoided costs continue to rise.</p>
Page 42, paragraph 110	<p>HREA Comments: Biomass will continue to play an important role in Hawaii’s energy picture. There are several alternatives for generation of electricity, including conventional cogeneration, CHP, waste-to-energy and landfill gas. Yes, biomass can be a local source of biofuels, such as ethanol and biodiesel. However, in the long-term, when we have maximized our biomass output in Hawaii, we can opt to import biofuels from the mainland and/or look at renewably-derived hydrogen as an alternate fuel. Note: biomass gasification, with its higher conversion efficiencies, will play a role for both the generation of electricity and the production of biofuels.</p>
Page 42, paragraph 111	<p>EI states: “Although less than 10% of Hawaii’s generation and plant capacity is from renewable energy, the state currently has a wide range of renewable energy resources, such as biomass, geothermal, hydro, wind, and solar, and the technical prospects seem promising.”</p> <p>HREA Comments: Is EI implying that we should already have a higher renewable fraction?</p>
Page 43, paragraph 116	<p>HREA Comments: We believe that it would be a bit of a stretch to assume that the candidate projects identified in previous studies and listed in Table D3 are under consideration. We do believe that if RPS is implemented in a competitive manner, there would be a number of solar projects proposed.</p>
Page 46, paragraph 124	<p>The first sentence of this paragraph reads: “The development of renewable energy technologies may be promoted through the pressures of market forces and regulatory policy.”</p> <p>HREA Comments: To HREA, this sentence implies that RPS should be implemented via a competitive bidding process. Is that what EI is suggesting? If not, why?</p>

Attachment B
(Continued)

Page 46, paragraph 125	<p>The first sentence of this paragraph reads: “The efficiency and efficacy of RPS, RPS-style policies, or RPS/SA policies nationwide are likely to be empirical matters.”</p> <p>HREA Comments: Is the basis for this assessment due to the relative infancy and lack of case studies of RPS policies? Is EI also suggesting that embarking on an IR mechanism in Hawaii is likely to be an experiment, and like all experiments, it is likely that whatever approach is chosen, we will most likely have to make some adjustments to the mechanism selected, or perhaps reassess and select another mechanism?</p> <p>We believe there are some important lessons to learn from the leading RPS states of Maine, Texas, Minnesota and California. Specifically, RPS does best when there is: (1) strong state (government, utility, industry and consumer) support, (2) competitive bidding is used to acquire renewables, and (3) there are penalties to ensure utility compliance with the RPS law.</p>
Page 47, paragraph 126	<p>The first sentence of this paragraph reads: “During the 2005 Legislative session, the Commission sought only one amendment to the RPS law, namely, the removal of the provision that electric utility profit margins would not decrease. However, the legislature did not amend the law as requested, and the Commission is required to implement the law as written.”</p> <p>HREA Comments: Is EI implying that the law should be amended?</p>
Pages 47 48, paragraph 130	<p>HREA Comments: HREA would agree that IRP could be part of an overall RPS implementation process. However, the IRP process requires revision, as we have suggested in the DG (No. 03-0371) and Competition (No. 03-0372) dockets.</p>
Page 48, paragraph 131	<p>The third sentence of this paragraph reads: “There appears to be a concern that “...Hawaii’s electric rates do not reflect true class cost of service, due to interclass and intraclass cross subsidies.”</p> <p>HREA Comments: If the PUC were to take actions to correct the interclass and intraclass cross subsidies, would EI consider this action ill-advised per EI’s following recommendation on paragraph 125 on page 46: “The Commission is advised not to propose a comprehensive revamp of the existing ratemaking structure.”</p>

Attachment B
(Continued)

Page 48, paragraph 132	<p>The first sentence of this paragraph reads: “An approach to the calculation of avoided cost may have to be developed (see Appendix E on the issue of avoided cost calculation).”</p> <p>HREA Comments: HREA agrees that such an approach <i>must</i> be developed for two reasons: (1) we do not believe the treatment of avoided costs by the utility has lived up to the <i>intent</i> and <i>spirit</i> of PURPA, and (2) the “green” attributes of renewable power are not part of avoided costs, and we believe an Independent Power Producer (IPP) should have the right to a separate REC transaction to receive payment for the “green” attributes of its project. Note: the PURPA transaction does NOT include a green component⁴. It is only for payment of the utility’s avoided cost of its conventional (fossil) generation. Thus, payment of green power includes two components: (i) power – the conventional payment under PURPA via avoided costs, and (ii) green – the environmental attributes that conventional sources do not provide.</p>
Page 49, paragraph 136; also page 50, paragraph 137; and page 54, paragraph 152.	<p>The first sentence of paragraph 136 reads: “In deciding between generating renewable energy, thereby obtaining the corresponding RECs, and purchasing RECs from independent generators, a vertically integrated electricity supplier has an incentive to select the least-cost combination of RECs, renewable energy, and non-renewable.”</p> <p>HREA Comments: Please explain. For example, under our current RPS law, the utility can only pay avoided costs or less for renewables. So what incentive does the utility have to pay less than avoided cost? We would argue there is none. The utility would simply pass through the cost of purchased power, just as they do fuel costs, to the customers.</p>
Page 50, paragraph 141	<p>HREA Comments: In the case of the utility’s failure to meet its RPS requirements, is it EI’s conclusion that an alternate compliance fee system would only work if the fees were sufficient to result in installation of renewable projects to meet the utility’s shortfall? If so, would EI recommend that a renewable power entity be established to administer a renewable energy development fund created by the alternate compliance fee system?</p>
Page 50, paragraph 141; and also page 58, paragraph 168	<p>HREA Comments: As an alternative to IR, has EI considered the merits of establishing a Renewable Power Authority that would assume the responsibility for meeting the state’s RPS? We believe the PUC should investigate this option. For example, the Authority, separate from the utility, could solicit proposals and work with winning bidders to secure contracts with the utility. In this case, funds for establishing and operating the Authority could be secured from a System Benefit Charge (SBC) collected by the utility from its customers. Note: if appropriate, the SBC could be established to fund renewable projects that are estimated to be above the projected avoided cost of the utility’s next generation increment.</p>

⁴ FERC ¶ 61,016, Order Denying Rehearing, Docket No. EL03-133-001, April 15, 2004.

Attachment B
(Continued)

Page 51, paragraph 142	<p>HREA Comments: HREA understands that utility creditors may treat potential penalties as imputed debts. Consequently, we suspect the utility will continue to oppose penalties, as they have in the past. We believe there is one potential benefit: alternate compliance fees might not be perceived as potential debt by the credit rating agencies. See also our comments below on Page 54, paragraph 150.</p>
Page 52, paragraph 146	<p>The first sentence of this paragraph reads: “The fourth candidate IR mechanism calls for the utility to provide an estimate of the avoided cost of its generation mix.”</p> <p>HREA Comments: HREA takes the position that it would be more appropriate to use the utility’s estimate of the avoided cost for its <u>next</u> planned increment. Thus, this avoided cost would become a more appropriate “target” price for the utility to solicit competitive bids.</p>
Page 54, paragraph 150	<p>The third sentence of this paragraph reads: “Another possible criticism is that the fourth candidate IR mechanism is unlikely to resolve the possible conflict between building a plant, which is an asset in financial statements, and signing a long-term contract, which functions as a debt-like obligation that possibly has an adverse effect on credit ratings.”</p> <p>HREA Comments: HREA understands the debt-like obligation (also called imputed debt) stems from use of contracts with fixed-payments. If that is the case, we believe the solution would be to convert the fixed payments to variable payments. For example, IPPs would receive payments for energy and capacity “delivered,” on a straightforward “cents/kWh” basis. The energy component would be calculated according to current practice, and as amended in the future. The capacity component would be calculated by a prorating the costs of capacity on a time-of-use basis. Note: the capacity component would essentially be an adder to the energy component. Furthermore, HREA supports requiring Offerors in a competitive bidding solicitation to bid their cost for delivered electricity as discussed above. This would allow all sources to be compared on the costs of delivered (supply-side sources) or avoided (DSMs) electricity.</p>
Page 54, paragraph 152	<p>HREA Comments: HECO is already well-known for its “vigor” in “negotiations with independent developers of renewable energy resources.</p>

Attachment B
(Continued)

Page 54, paragraph 153	HREA Comments: We do NOT believe that the price consumers pay for renewable energy can be “fair and just” if that price continues to be pegged to oil in the form of avoided cost as currently being calculated in Hawaii. Thus, we do not believe it really make sense to talk about any IR mechanisms that are tied to our oil-based avoided cost. We prefer the use of competitive bidding in which all Offerors are required to provide bids for delivered electricity as discussed in our comments on paragraph 150 on page 54 (above). Furthermore, the bid for delivered electricity should be required to be “fixed” over a specified contract period. Offerors, of course, would be free to propose cost increases over time, e.g., based on a specific Consumer Price Index. However, under no circumstances can we support the continued pass through of fuel costs, as is currently done via the “Energy Cost Adjustment Clause.”
Page 56, paragraphs 161 and 162	HREA Comments: Is HREA correct in understanding the gist of the “seventh candidate IR mechanism” is to allow a payment greater than avoided cost (which currently is not allowed in our RPS law)? Or is the “seventh candidate” an attempt to redefine avoided cost?
Page 58, first bullet	HREA Comments: Since RECs are available from sources on the mainland, as well as worldwide, and those sources are likely to expand, why would REC trading for the utility be limited?